ATTACHMENT A
REMARKS

The interview held with Examiner McNeill and her supervisor, Examiner Simmons, is gratefully acknowledged. The courtesy and cooperative spirit shown to applicant's representative during that interview is appreciated. The interview centered around the rejection on prior art and particularly focused on a newly cited Williams patent (US Patent No. 5,749,850) that was brought to the attention of counsel prior to the interview. The substance of the discussion at the interview is incorporated in the remarks which follow.

Turning to the Williams patent, the teachings of this patent are similar to those of the Britto patent already cited by the Examiner. The differences between the present invention and the breast pump disclosed in the Britto Patent have been discussed at some length in previous responses. Williams discloses a breast pump including a diaphragm but clearly does not disclose a diaphragm having a configuration that prevents stretching, or is made of a material of a construction such as to prevent stretching. In this regard, the Williams patent provides that the diaphragm disclosed therein is made of a resiliently deformanable material such as silicone rubber (see column 6, lines 25-31) and it would be clear to one of ordinary skill in the art that this diaphragm would clearly stretch during use as the result of the generation of reduced pressure on one side of the diaphragm.

Considering the advantage of the "non-stretch" feature in more detail, a figure A is enclosed herewith which is generally modeled after Figure 1 of the Britto patent and is also similar to what is shown in Figure 2 of the Williams patent. As set forth in the descriptive material, as lever 65 is depressed in direction B, the bottom plate of the diaphragm D (which diaphragm corresponds in function to the sleeve of the embodiment of Figure 4 of the present application), is pulled upwardly. When suction chamber 84 is open (i.e., without the breast present), the convolutions C of the diaphragm move upwardly half as far as the rise of element A. When chamber 84 is closed off by the breast, the suction generated in chamber 84 pulls downwardly on convolutions C and reduces the upward travel of these convolutions. This results in a reduction in the increase of the volume of the chamber 84, thereby reducing the suction

level generated. As a consequence, part of the energy imputted by the lever is lost because of the stretching of the diaphragm. Thus, by using a non-stretch construction as claimed, e.g., by embedding a mesh in the diaphragm, the diaphragm continues to fold/roll as in the prior art but does not stretch, thereby eliminating the associated energy loss.

Also attached here with are Figures B and C, and corresponding calculations, which demonstrate that for a typical diaphragm, the amount of stretch is about 0.4 cm and the amount of wasted energy is on the order of 18%. It will be appreciated that this is quite significant in a breast pump and particularly in a manually operated breast pump wherein in any effort on the part of the user that can be saved is important.

With respect to the concertina-type arrangement claimed in, for example, claims 2 and 22, the differences between the present invention and the prior art have been discussed in previous responses.

Finally, new claims 24 and 25 have been added which set forth specific embodiments of the claimed sleeves comprising a substantially non-stretch material. These claims are similar to existing claims and are supported, for example, by lines 18-23 of page 13.

Allowance of the application in its present form is respectfully solicited.

END REMARKS